

Title (en)
TURBULENT/FAST FLUIDIZED BED REACTOR WITH BAFFLES TO MAXIMIZE LIGHT OLEFIN YIELDS

Title (de)
TURBULENTER/SCHNELLER WIRBELSCHICHTREAKTOR MIT ABLENKPLATTEN ZUR MAXIMIERUNG DER AUSBEUTE LEICHTER OLEFINE

Title (fr)
RÉACTEUR À LIT FLUIDISÉ TURBULENT/RAPIDE DOTÉ DE CHICANES PERMETTANT DE MAXIMISER LES RENDEMENTS EN OLÉFINES LÉGÈRES

Publication
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Application
EP 20753445 A 20200730

Priority
• US 201962883072 P 20190805
• IB 2020057228 W 20200730

Abstract (en)
[origin: WO2021024119A1] Systems and methods for producing light olefins wherein a feed stream comprising naphtha is flowed into a reaction unit comprising a fast fluidized bed reactor coupled to and in fluid communication with a riser reactor. The fast fluidized bed reactor comprises baffles therein to minimize backmixing therein to maximize the production of light olefins. The effluent from the fast fluidized bed reactor is further flowed to the riser reactor. The lift gas, which can comprise nitrogen, methane, flue gas, or combinations thereof, is injected in the reaction unit via a sparger. Effluent of the riser reactor is separated in a product separation unit to produce a product stream comprising light olefins and spent catalyst. Spent catalyst is further stripped by a stripping gas comprising methane, nitrogen, flue gas, or combinations thereof. Stripped spent catalyst is regenerated to produce regenerated catalyst, which is subsequently flowed to the fast fluidized bed reactor.

IPC 8 full level
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CPC (source: EP US)
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